

# Crown



October, 1947



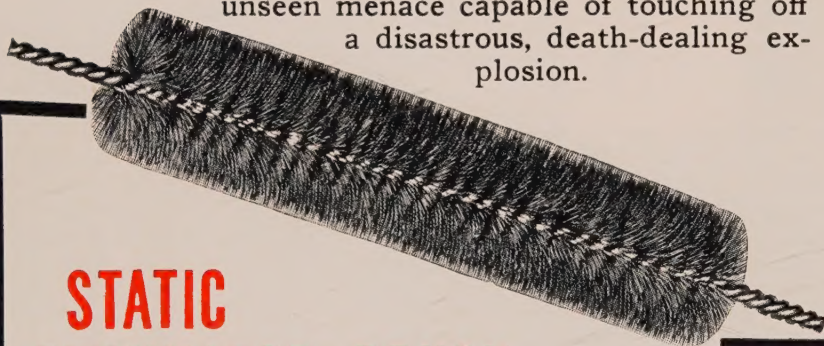


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#### SOGES CHAPTER MEETING DATES

1st TUESDAY—Minnesota SOGES Chapter. Smith Champlin, Archer-Daniels-Midland Co., Minneapolis, President; James Auld, Hales & Hunter Co., St. Louis Park, Secretary.

2nd TUESDAY — Omaha-Council Bluffs SOGES Chapter. Charles F. Walker, Archer-Daniels-Midland Co., Council Bluffs, President; John T. Goetzinger, Rosenbaum Brothers, Omaha, Secretary.

2nd FRIDAY — Central States SOGES Chapter. M. M. Darling, Acme-Evans Co., Indianapolis, President; N. R. Adkins, Purina Mills, Lafayette, Ind., Secretary.

3rd TUESDAY — Kansas City SOGES Chapter. Claude Darbe, Simonds-Shields-Theis Grain Co., President; Orrin E. Kinman, Cargill, Inc., Secretary.

3rd TUESDAY — Chicago Soges Chapter. Leonard Danielson, Arcady Farms Milling Co., President; Lincoln Scott, Corn Products Refining Co., Argo, Secretary.



# SANITATION

## *The New "War Cry" of the Food & Drug Administration*

By JOHN S. WHINERY

*Rodney Milling Company, Kansas City*

### BEFORE THE SOCIETY OF GRAIN ELEVATOR SUPERINTENDENTS

#### Plant Heads Indicted For Weevils

**D**URING the early stages of sanitation control the government usually seized unfit foods—and only in very bad cases was action taken against companies. Today there are cases on record where criminal action has been taken not only against companies but, in some instances, managers and plant superintendents have personally been indicted and personally charged with preparing or handling food under insanitary conditions.

The charges were mostly based upon the presence of rats, weevil infestation, bird excreta or wheat, and other things in this category.

At this point I am tempted to ask for a show of hands of those of you who have elevators free of such contamination, but if I did I would only embarrass those who held up their hands—and make liars out of those who didn't.

#### Even Look For Urine Stains

**F**EDERAL inspectors have, for some time, been checking conditions in bakeries and mills. They carry flash lights to investigate conditions in remote and dark corners, and to examine the inside of elevator boots, storage bins, and machinery. They use black lamps to discover rodent urine stains.

One visit by these inspectors and you realize they mean business. In addition to plant inspections, they take samples of raw materials. In the Federal laboratories they find samples of flour that contain microscopic particles of rodent excreta, rodent hairs, insect fragments, and other such extraneous material.

No longer is it necessary for live bugs to be crawling about in flour, for flour to be considered weevily. In fact these tiny insect fragments, only visible under a microscope, indicate that weevils are actually being ground along with the wheat and their fragments distributed all through the flour.

#### Guilty Until Proven Innocent

**A**T PRESENT the burden is on the miller who is expected to produce a fragment free flour. Top management in the milling industry recognize and support the purpose and intent of the Pure Food and Drug Administration. Attesting this fact I take the liberty of quoting from a statement which appeared in a publication of the Miller's National Federation:

*The theory that there are always some bugs in a mill is out of date—and so is the operative who subscribes to it. The fact that there was an acute shortage of help in wartime is no longer valid as an excuse for poor plant conditions. It is all very well to claim that 'I'm doing the best I can,' but if the idea of what constitutes 'best I can' was formed 20 or 30 years ago—and hasn't been revised upward since—it is a cinch to be inadequate.*

*"In this connection the comment of Federal Judge Moore of West Virginia in a bakery case is enlightening. He said: 'The law means that the public must not be given products which are produced under insanitary conditions regardless of what is necessary to prevent it.' This idea runs through practically every judge's finding in a food case."*

#### CAN Find Needle In Haystack!

**T**ODAY laboratories are making routine tests for extraneous material in cereals and cereal products. Methods of analyses are becoming standardized. There is no guess in determining if a product is contaminated. To the trained entomologist, microscopic fragments are readily identified under the microscope. When analyzing flour he is able to determine from these minute insect fragments what specie of insect is getting into the mill stream. This is exceedingly helpful in tracing the source of infestation. Small fragments of rat hairs, cat hairs, rodent excreta, also insect eggs, are easily identified.

**I**T GIVES me a great deal of pleasure to address this organization. I welcome the opportunity of picturing to you, the experiences of your kindred industries, namely the milling and baking industries, and to point out that in the very near future you, too, will share their problem of SANITATION.

Sanitation as applied to elevator operations may be considered the new war cry of the Federal Food and Drug Administration, but as applied to food processing in general this certainly is not true. Let me remind you of the government's controls now regulating dairy products, meat processing, fisheries, canneries, water supplies; yes, even the breweries and tobacco industries, and many others.

#### Must Alter Ideas To Meet Today's Standards

**P**URE Food and Drug laws are designed to protect public health. To achieve this goal we can expect no compromise on the part of the Food and Drug Administration. Our industries must revise present practices to meet today's standards. We must become more conscious of the fact that grain and grain products are not just commodities which we handle in our every day work, but are foods destined for human consumption.

As early as 1879, Congress introduced the first laws regulating the interstate sale of foods and drugs. Twenty five years later the Federal Food and Drug Act of 1906 was passed by Congress. As applied to the cereal industry this act provided that a food was adulterated if it consisted in whole, or in part, of a filthy, decomposed, putrid animal or vegetable substance.

By 1938 it became evident this law was inadequate as it was necessary to prove the material contaminated before action could be taken. In 1938 the Pure Food and Drug Act was revised.

Among the revisions an important and far reaching clause was included, in addition to the one just mentioned, which states that a food is adulterated if it has been prepared, packed, or stored under insanitary conditions whereby it may have become contaminated. In other words, a food is unfit for human consumption if it has been stored or handled under insanitary conditions, although the actual filth is not present in the food.



Millers are adopting extensive sanitation programs. They have removed debris from the premises which serves as a recluse for rats. They are eliminating old and unused spouting, conveyors, and unnecessary dead boxes which only serve as breeding places for bugs. They are rat proofing their buildings and screening open windows to prevent birds from entering.

#### Grain Cleaning Getting "The Eye"

New installations are designed to eliminate dead corners and recesses that might harbor insects. Grain cleaning departments are

receiving particular attention, for unless grain is thoroughly cleaned it is impossible to produce flour free of extraneous matter.

Many mills now have a sanitation control department. The individual in charge of this department is assigned the responsibility of policing sanitation conditions, not only in the mill proper, but grain storage, warehouse, sack storage, etc. The millers' program is a long range program.

The miller cannot lick the problem of sanitation single handed. He must have the cooperation of the baker,

the railroads, the machinery manufacturer, and the grain men.

This statement should not be misinterpreted as a buck passing attitude or expecting too much on the part of the miller for isn't it true that in part the welfare of these various enterprises depends upon the millers' ability to deliver to the baker an unadulterated product?

#### Already Redesigning Elevator Machinery

**T**HE baker is already checking the condition of used bags returned to the mill for repacking and in many cases changing to paper bags. The railroads have already appointed committees and have had joint meetings with milling and bakery representatives concerning weevil infestation within box cars. Machinery manufacturers are already at work redesigning elevator and milling machines.

Unfortunately *weevily* wheat, which is the greatest single source of insect fragments in finished flour, can be legally offered to the miller as SOUND wheat. Under present grain standards a high percentage of wheat berries in a given lot may be infested within the berry, but unless live weevil are actually crawling about in the wheat it will not grade weevily.

Wheat cleaning machinery will not successfully remove all wheat berries having internal infestation. Millers are doing the best job they can using aspiration, impact machines, etc., but I can say without reservation that no method today is 100% successful in removing all insects that are within the wheat kernel. Obviously then these insects are ground into the finished flour. Fumigation will kill these insects, but the dead insects still remain within the wheat kernel.

#### Grade Certificate To Include X-Ray Report?

**C**ONFRONTED with this evidence, which is common knowledge, together with the fact that more rapid and less laborious methods will be developed for determining the degree of infestation, pressure will be put on the government to adopt such methods and to show the degree of infestation on grade certificates.

The Pure Food and Drug people may then step into the picture and insist upon denaturing wheat found to be excessively contaminated and render it unfit for human consumption.

This isn't idle talk. Food and Drug inspectors are beginning to look in the direction of wheat supplies, and sooner or later terminal elevators, country elevators, and perhaps even the farmer, will hear the "War Cry of the Pure Food and Drug Administration."



#### DO IT THE SAFE WAY

If you stand like this the truck may slip and the result will be a bruised shin or worse. (*The Staley Journal*)



## Frank Notes—

● Seems that Great Britain with 7 billion in dollar assets is far from being the "pauper" that we're led to believe.

● The 1947-1948 wheat crop is figured to be 250,000,000 bushels greater than last year, and it is this grain that is permitting the virtual maintenance of the original export program as to wheat, according to best information.

● Perhaps you haven't noticed—but government figures show that today's dollar buys one-half of what it bought in 1939.

● Car shortages are retarding the flow of coal in very much the same way that grain was held back.

● Nearly 25 tons of steel are required to build a 50-ton, 50-foot box car.

● Remember the old saying, "God helps those who help themselves"? Seems like some of the European countries need a copy of "Poor Richard's Almanak."

● Prices received by farmers in the month leaped to a new all-time high, materially exceeding an accompanying increase in the cost of items that farmers must buy.

● Tobacco stretchers—Coffee stretchers—now Grain stretchers. If the farmers respond to the grain-stretching program it is possible that 200 million bushels more of grain will be available for human consumption. 17 million tons of grains are fed to animals yearly.

● Can't get away from the food conservation program. The Millers' National Federation has decided to postpone indefinitely its projected proportional program to boom the sale and use of bread and flour. The federation had planned a 2½ million dollar publicity campaign.

● Personal income in the first seven months of 1947 was at an annual rate of 192.2 or 12% above the 171.9 billion dollars for the corresponding period of 1946. Higher farm incomes, state bonus payments to World War II veterans and increased wage and salary receipts were the principal factors responsible.

● One of the things that should be stopped is the growing number of highly placed individuals who spout off about the big food price controversy. Their talk is dangerous because facts on the matters are the result of precise knowledge that they, these demagogues, chose to ignore. One of the inane reasons they advance is that "speculation in the Chicago market" has accounted for most of the rise.

● Suit for damages against the Federal government was filed by Cargill, Inc., the petition resulting from the crash of a navy plane into their Willis, Kan., grain elevator. May be a test case for the future.

● When all the other factors are taken into consideration—devastation, drought, bad harvests, lack of transport—the prime cause of the almost world-wide lack of bread is lack of peace.

● Looks like one of the handicaps Charles Luckman had to surmount is the fact that people who saw "The Hucksters" in the movies don't like young men who are presidents of soap companies.

● Every employee of every company should be an expert in one thing: his own job.

● King Gustav of Sweden, on a recent hunting trip, is said to have downed three elk with three shots. But a friend of ours, the other day, downed three shots with three Elks.

● The second National Materials Handling Exposition to be held in Cleveland, Jan. 12-16 will feature over 150 exhibits of equipment and accessories.

● The National Safety Council's slogan is a good one to remember. BE CAREFUL—THE LIFE YOU SAVE MAY BE YOUR OWN.



### DO IT THE SAFE WAY

If you push the truck under the bags this way, you probably will be all right. (*The Staley Journal*)



## Fight Insects —Save Grain

Modern insect control measures alone would enable this nation to meet the 100 million bushel grain goal set for the relief of Europe by the citizens' food committee appointed by President Truman, a noted scientist has advised the government.

Dr. H. L. Haller, in the bureau of entomology and plant quarantine of the United States department of agriculture, told members of the north Jersey section of the American Chemical society that insects annually destroy 300 million bushels of stored grain valued at 600 million dollars in this country. Although 100 per cent control of such pests is unattainable Dr. Haller said that much of the loss resulting from their ravages can be avoided.

A recent survey, he reported, shows that only five per cent of the grain stored on farms receives adequate protection against the destruction by insects. At some time during the year, he pointed out, 97 per cent of the nation's corn crop, 94 per cent of the oats, and 60 per cent of the wheat are stored on farms prior to shipment.

### Big Saving Held Possible

"One hundred million bushels of next year's corn crop may be saved

from insects by applying methods to control European corn borer, the Japanese beetle, the corn ear worm, and other insects," Dr. Haller asserted.

"Likewise, 25 to 50 million bushels of small grains could be saved each year by applying known methods of insect control. Cotton is the source of great quantities of vegetable oil, as well as much live stock feed in the form of cottonseed meal. Insects annually reduce the national cotton crop by 13 per cent or more."

### Control Measures

Application of DDT sprays with lasting effect to empty wooden storage bins is one of the measures recommended by the bureau of entomology and plant quarantine, Dr. Haller related. Another control measure, he said, is the treatment of seed grains with a dust containing three per cent of DDT at the rate of one-half ounce for each bushel.

Fumigation of farm stored grain should be intensified, he recommended in explaining that improved storage facilities including tighter construction of bins would increase the effectiveness of fumigation.

Dr. Haller also pointed out that the

control of parasites that pester live stock also can help indirectly to stretch supplies of corn and other feeds. The parasites that annoy live stock, he explained, exert a deleterious effect by robbing farm animals of the benefit of one ear of corn out of every 10 they eat, he said.

Better synthetic organic insecticides have been discovered during the last five years than in all the previous history of insecticide research, Dr. Haller observed.

### Discovered at Critical Time

"Several of these discoveries," he pointed out, "were made at a time when the need for better insecticides to control insect pests on food and fiber crops, stored products, live stock and forest products was greater than ever before."

The knowledge that an organic compound is highly toxic to several species of insects is not the only requirement for its immediate widespread use, Dr. Haller advised.

Before the utility of any such compound in controlling injurious insects can be determined, information must be obtained regarding its safety to public health, to farm animals, soils, and to vegetation, he said.



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## Data For Choke Prevention

Sometime ago you asked me to give you a little information on elevator boots and how to keep them from choking. An elevator of a given bucket size with a given head shaft speed will elevate a given amount of material per hour. Most of the elevator choking can be traced to the fact that the elevators are overloaded. Sometimes, elevating equipment is installed to handle a particular job and due to plant expansion, the equipment is overloaded to meet the requirements of the plant changes.

If the take-ups are properly adjusted on the elevator boots, so that the belt has the proper tension and the elevator is not overloaded, the proper horsepower on the drive, the spacing of the buckets spaced properly, there should be no choking in the equipment.

### Bucket Heads

It is very necessary to have an even feed. A D.P. bucket requires a different elevator head than does a Salem bucket. If a Salem bucket is used with a head which is provided with a longer throw—the spout or discharge of the elevator is farther away from the down leg—some of the grain will fall back down the leg and it will be necessary to re-elevate the grain over again. This will reduce the capacity of the elevator leg considerably. There are sheets available, giving the capacity of the elevator in bushels of grain per hour, with pulleys of usual size and speed. A very useful chart can be found on

page 348 of the Union Iron Works Catalog, giving the capacity of an elevator leg a 2"x2" bucket size to a 20"x8"x8" bucket size.

To figure the horsepower of a bucket elevator size, find the weight per minute of material elevated by multiplying the number of cubic feet per minute times the weight per cubic foot. Multiply the weight lift per minute by the distance between the pulley centers (head pulley and boot pulley), divide this by 33,000. To the result so obtained, add approximately 100% for friction and the final result will be the approximate horsepower required to drive the elevator.

D. P. Swan, Field Eng., Gruendler Crusher & Pulverizer Co., St. Louis.



"He's been making speeches constantly ever since he ate that Union Organizer."

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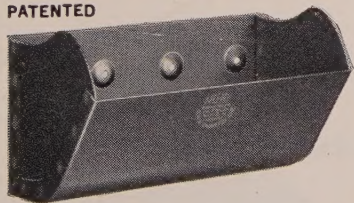
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#### DO IT THE SAFE WAY

As the grain shovel nears the car door release the right hand as this man has done (*The Staley Journal*)

## Power Transmission Roundtable

*Ques. What should be the proper spacing of elevator buckets on the belt?*

*Ans.* On standard slow speed elevators using the standard slow speed Salem buckets, the buckets are spaced 16 inches center to center; ear corn buckets are spaced 18 inches center to center. On high speed elevators, with high speed cups for handling grain, the spacing is 1 or 1½ inches greater than the projection of the cup. On high speed elevators using high speed buckets on soft feed, the spacing is approximately twice the projection of the cup.

*Ques. In changing from slow to high speed elevator buckets, what precautions should be taken?*

*Ans.* All of the transmission must be refigured, as the horse-power will change directly with the increased load; and in extreme cases it has been found necessary to lag the head pulley, to give sufficient traction between the belt and the pulleys.

*Ques. Is it necessary to increase the elevator head shaft when changing from slow to high speed buckets?*

*Ans.* It is generally necessary to increase the head shaft and the bearings, due to the increased load and the horse-power, causing more torque to the shaft, and also increasing the bending moment of the shaft due to the increased load. Especially does this become serious if the bearings are quite a distance apart.

*Ques. Is it necessary to consider changing the elevator housing when changing from slow speed to high speed buckets?*

*Ans.* Yes, as the high speed cups start to discharge sooner and over a larger part of the circumference of the pulley, necessitating more clearance between the cup and the top of the elevator head, and also a larger discharge opening. There should be ample clearance in the legs for the belt and cups, to prevent scraping of the cups on the legs, and to pre-

## NEED INFORMATION?

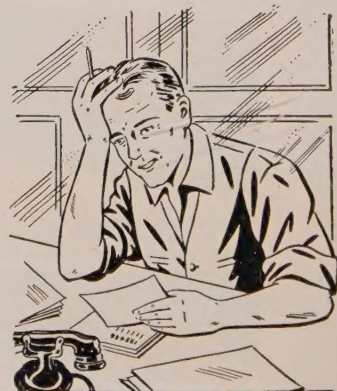
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vent excess air pressure. It is also advisable to have an adjustable baffle plate at the throat of the elevator, to reduce the space between the elevator cups and the point of discharge.

*Ques. What steps should be taken to arrive at the total horse-power requirements?*

*Ans.* To the total horse-power required to elevate the load, add 15% to overcome bearing friction (if the bearings are frictionless bearings), and also to overcome unequal loading. If, however, plain babbitted bearings are used, it is necessary to add 30%.

*Ques. How much excess horse-power should be used in the drive from the motor the elevator?*

*Ans.* The drive from the motor to the elevator should be of greater horse-power than the motor, approximately  $2\frac{1}{2}$  times the actual horse-power load; so that it will fully cover the horse-power to elevate the load, the friction loss, and the overload capacity of the motor. Then the motor should be fused to blow out at just slightly under this peak load, in this way preventing any slipping of belts in the drive from the motor to the elevator, which slippage could cause fires or explosions.

*Ques. What are the main conditions that cause elevators to blow or dust?*

*Ans.* An overloaded elevator, or one not properly fed, will cause blowing or dusting. The belt and the elevator buckets create an air current when running over the pulleys, and each spout entering the elevator carries material and air with it. Thus, the combined air currents and material are increased, causing an air pressure, which naturally seeks an outlet.

*Ques. Can this blowing or dusting be eliminated in a satisfactory manner?*

*Ans.* Yes, by relieving this pressure, which is mostly found at the boot on account of the inlet stock usually being at the boot. This pressure can be relieved with a natural vent, or can be done more efficiently with an air suction, which excess air

can be figured to a reasonable degree.

*Ques. What determines the diameter of head pulleys?*

*Ans.* Tables advertised by the mill furnishers seem to agree very well, and can be followed. This can be determined by the size cups, capacity, and height of the elevator, and according to the ply of belt.

*Ques. How does one go about selecting the proper belt for an elevator?*

*Ans.* It is necessary to estimate the weight of the belt, cups, and load on the up belt to obtain total strain on the belt, and then select a leg belt from the following figures: 20 pounds per inch per ply is a very practical tension on which to figure to estimate the width of the belt,



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There's no "parting of the ways" while traveling up the up-leg . . . no backlegging when grain is elevated with the

**CALUMET** Super Capacity **CUP** Elevator

The patented Logarithmic Curve design keeps grain securely hugging the cup until it reaches proper point of discharge.

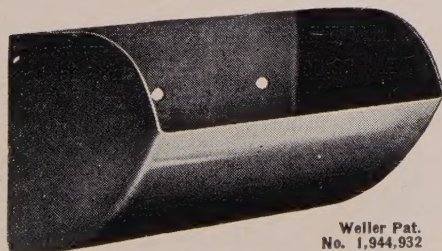
Made of heavier gauge steel of one piece welded construction . . . no rivets, bands or overlaps. Permits closer spacing on belt. Makes faster belt speeds possible. Provides greater load and elevating capacity.

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DO IT THE SAFE WAY

This man probably will strike his right hand and injure it on the car door  
(The Staley Journal)



which width is usually determined by the size bucket, and, of course, the heavier the ply the larger the pulley.

PAUL NAEHER  
Roundtable Chairman  
B. F. Gump Co., Chicago

## Pneumatic Materials Handling

A war development, Sprout-Waldron's Pneu-Vac System represents an important advancement over conventional products collecting and conveying methods. Specially designed fea-

tures reduce product loss through collector exhaust by as much as 10%; eliminates the need for a second filter collector. A Pneu-Vac can exhaust in the same room where collector is located.

Because the entire system is under reduced pressure, injurious or objectionable dusts cannot escape through piping connections, and the suction keeps the system free from bugs or weevils. There is no residue. Better working conditions and a cooler, cleaner product result.

Material does not pass through the pneumatic fan located on top of collector, thus there are no parts to wear out—a considerable saving, especially

in the handling of abrasive materials. Piping life is prolonged, too, because materials are actually conveyed in suspension.

Because Pneu-Vac is job-engineered to meet individual installations requirements, it is adaptable to all types of grinders. Friable materials are handled with a minimum of breakage. By removing back pressure created by elevators or conveyors. Pneu-Vac increases grinding capacity per input HP as much as 30%.

For complete details, write Sprout, Waldron & Company, 100 Waldron Street, Muncy, Pennsylvania.

### ELEVATORS SAVED IN SANFORD BLAZE

All buildings with the exception of the elevators were destroyed in the recent \$350,000 fire loss sustained by the Sanford Milling Co., Sanford, N. C. Corn and wheat stored in the elevators were damaged by the fire, origin of which has not been determined.

### GWINN TO CONTINENTAL

Continental Grain Co. assumed operation of the Gwinn Milling Co., Columbus, Ohio, on Sept. 27 and announced that preparations were being made so that full-scale grain operations would be resumed. The Gwinn Milling Co. had two disastrous and costly fires within the last two years. Continental had previously leased a part of Gwinn's elevator space.

### IMPROVE UNLOADING FACILITIES

To provide more adequate facilities for unloading, binning and cleaning wheat, as well as to increase storage capacity a quarter of a million bushels, Tenrunt & Hoyt Co. of Lake City, Minn., has launched upon quite an extensive expansion program.

### PORT TERMINAL EXPANDED

The total capacity of the Port of Longview, Wash., elevator has been boosted to 1,000,000 bu through the completion of a 600,000 bu addition. Continental Grain Co. leases this plant, as well as the 900,000 bu terminal at The Dalles, Ore., and the 500,000 bu house at Pasco, Wash.

### NEW PLANT FOR CLEVELAND

A \$2,500,000 investment is announced by the International Milling Co. of Minneapolis, for Cleveland, where a 1,000,000 bu elevator and a 4,000 cwts mill will be built on a recently acquired 10 acre lakefront site accessible to both Lake Erie and river traffic.



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## Flax Separator

The Principle Separator Company, 630 North Robert Street, St. Paul, Minnesota, announces the manufacture of a new flax cleaner, revolutionary in principle and operation. A midget in comparison to standard flat screen cleaners. It yet surpasses all standards of capacity set by its mammoth predecessors.

Basically the cleaner consists of two inclined revolving screen reels which also reciprocate in opposite directions. The reciprocating action serves the purpose of screen scrubbing contact while the revolving action tends to create a boiling action of the material in the bottom of the reel, thus preventing floatage of light grains which must have screen contact for separation.

A soft brush is mounted on the top of the reel and brushes the wire gently in the longitudinal direction of the slots to free the screen of any oats or roughage that may have lodged in it. The roughest mixtures have no damaging effect on the wire mesh.

Another important feature of this cleaner is the adjustability of the pitch on the reciprocating reels. They travel at a slightly inclined plane towards the discharge end which allows a long slow stroke without having the material thrown over the discharge end until it is properly cleaned. Regardless of the amount of throughs the depth of the material in the reel can thus be kept at the required level.

The machine requires only a small amount of floor space and is operated by a  $\frac{3}{4}$  H.P. motor. It is so well balanced that it requires no fastening to the floor and as it is of all steel construction with roller bearings throughout, it will give long service.

Although the Principle Flax Separator No. 9 is at present the only machine in production, exhaustive tests have proven this patented principle of operation to work sensationally on the width grading of barley for malting purposes, also for hybrid corn, and other grains. Announcement of manufacture of machines for these separations is expected soon.

Ovie N. Christopherson, the President of this company, is a former elevator superintendent having worked over 25 years with Archer-Daniels-Midland Company and spent some time with Froedert Malting Company.

### STORAGE ADDITION FOR STATE MILL

The North Dakota Mill & Elevator, Grand Forks, N. D. plans construction of 24 reinforced concrete grain tanks to add more than 500,000 bushel capacity to its present storage capacity of 2,300,000 bushels.

## PLAN SACRAMENTO ELEVATOR

Consideration is being given the construction of a public 500,000 bushel elevator for storage of bulk and sacked grain by the Sacramento-Yolo Port District. The new elevator, it is planned, will be able to service the entire northern area of California.

### A-D-M'S KANSAS OPERATIONS TOLD

The Kansas Business Magazine in its August issue featured a story about the Archer-Daniels-Midland Co.'s Fredonia mill, entitled "Soybean

Mill Has Faith in Kansas." The Fredonia mill has been modernizing and expanding during the past year and now has a storage capacity for 900,000 bushels.

### NEW FEED MILL FOR INNES

Grain storage of 100,000 bushels is planned in the construction of a new feed mill and storage bin to replace the west elevator of the Innes Elevator Mills, Warrensburg, Mo., which is being dismantled and overhauled. Present reconstruction is part of a plan for complete replacement of all present buildings.



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which cannot be turned conveniently

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## Midwest Malting Barley Growers Offered Prizes

A \$30,000 contest which stresses the profit possibilities to farmers who grow barley meeting the special requirements of the malting industry is announced by the Midwest Barley Improvement Association of Milwaukee.

Cash prizes and trophies are offered to individual growers of top grade barley suitable for malting in seven midwest states in 1948. The prizes are divided into county, state and regional or championship classifications. The championship prizes are to be awarded at the Midwest Malting Barley show to be held at Minneapolis in January, 1949.

The contest announcement states that high quality barley is urgently needed by the malting industry, and adds:

"The continuing demand for malting barley forecasts a wider market and a most profitable price for this grain. In fact, there is every reason to believe that more than 125 million bushels of barley suitable for malting will command a premium price during the 1948 crop season."

### BARLEY—\$330 A BUSHEL

In a Minnesota malting barley contest sponsored by the Minnesota Brewers Association, in coöperation with the Midwest Barley Improvement Association and the Northwest Crop Improvement Association, the winning bushel of barley enriched its owner \$330 through prizes.

### L. B. YOUNG DEAD AT 86

One of the pioneers in the milling and grain business of Kansas, L. B. Young died Sept. 17 in Los Angeles. Mr. Young during the many years of his association with the grain trade, had connections with many companies and organized the Western Terminal Elevator Co.

### FRED HOUSER DIES

Fred Houser, well known to the grain trade of Kansas City, and former manager of the Kansas Grain Co.'s elevator at Hutchinson, died Sept. 11. Mr. Houser, who was 70, retired last spring.

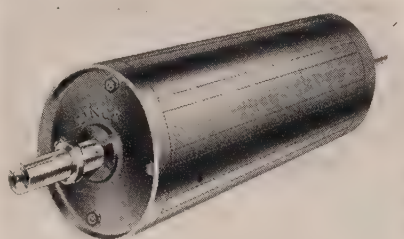
### CO-OPS SET RECORD

The USDA stated this month that farmer cooperatives did more business last year than ever before in history. The Co-ops added 500,000 new members and did a total business of more than 6 billion dollars. The business of 2256 grain coöperatives passed that of dairy coöperatives in the 1945-1946 season to take first place with a \$1,495,000,000 business.

## Alnico Magnetic Pulley

The Perma-Pulley, a new permanent magnetic pulley with Alnico poles developed by the Dings Magnetic Separator Co., Milwaukee, Wis., is available in 53 sizes ranging from 12" diameter x 12" width to 30" diameter x 60" width.

Designed for use as head pulleys in a belt conveyor system or in a self-contained magnetic pulley-type separator unit, these magnets are used to remove magnetic substances automatically from non-magnetic materials carried on the belt.



Being of permanent magnet construction, no electrical wiring is required and the manufacturer guarantees the magnetic permanence forever provided the magnet is properly used.

The Perma-Pulley has a crown face to prevent belt weaving and to aid in even distribution of the burden across the belt as it passes over the pulley. Shaft diameters are standard to permit replacement of non-magnetic head pulleys in existing installations without changing bearings or shaft mountings. Head plates of the pulley are non-magnetic to prevent collection of magnetic material on the outside edges. A narrow gap design is used with non-magnetic gap plates between the poles and equal magnetic strength across the full width of the belt.

### NEW PROCESS DRIES WASTE FOR SALVAGE

A new moisture-removal process for either salvaging waste materials or reducing them to a more easily disposable form has just been evolved after 15 years of development by the Raymond Pulverizer Division of Combustion Engineering Co., Chicago. The process known as "flash-drying" has been applied commercially for salvaging materials that would otherwise be wasted and its success is measured in terms of savings of millions of dollars already. Among the materials to which the process is applicable are wastes from food products and spent grain from breweries.

## Russell Maas Leaves Screw Conveyor

Russell B. Maas, a founder and Vice President, Treasurer-Director of Screw Conveyor Corporation, Hammond, Indiana, bucket, screw conveyor, and mill equipment specialists, resigned, effective August 22.

Formerly Plant Manager and Director of Sales, Mr. Maas will take a long delayed vacation and will announce his plans for the future later.

President of the International Institute of Milling Technology, an active member of the Society of Grain Elevator Superintendents, and active in grain, feed, milling and other bulk conveying industries, Mr. Maas is widely known as a leading engineer and a staunch advocate of modernized bulk handling methods.

He has contributed greatly to the advanced strides which have been made in recent years in faster and improved handling techniques. His efforts along association lines have been so outstanding that the trade looks forward to learning his future plans.

### G&FDNA PICKS GREEN

Henry Hatch Green, Pattonsburg, Mo., was elected president of the Grain & Feed Dealers National Association at their convention September 14-16, held in St. Louis. The new president is owner and operator of the H. H. Green Mill & Elevator Co., and has long been active in the Association's affairs, serving as first vice president since 1945.

### Burrows Issues New Catalog

The first catalog issued by the newly organized Burrows Equipment Company has just been released for general distribution.

The colorful front cover of the catalog bears an announcement outlining the policies and facilities of the new organization comprised of men of long experience in the grain and seed industries. Pictured and described on the following pages is a comprehensive selection of quality grain and seed testing equipment and supplies approved and guaranteed by Burrows.

### Number of New Items

In addition to such standard items as moisture testers, probes, dockage sieves, treaters, blowers, bag trucks, the Burrows Equipment Company catalog lists several hundred other items, including a number of new items such as bagging scales, aluminum baskets, truck hoists, intercommunication equipment and industrial cleaners and blowers.

A copy of the catalog may be obtained by addressing a request to the Burrows Equipment Company, 1316 Sherman Avenue, Evanston, Ill.



## RESEARCH PROJECT ON CEREAL GRAINS

Looking ahead to the time when there probably will again be a surplus production of grain in this nation, the USDA recently announced a long-time project under the Research and Marketing Act for development of new and extended uses and markets for cereal grains, their products and by-products, as food or in chemical or manufacturing industries.

The project will be carried on by the Bureau of Agricultural and Industrial Chemistry at its Northern Regional Research Laboratory, Peoria, Ill., where studies of a similar nature are under way. The Bureau states that the project in the beginning will use only negligible quantities of grain.

### To Study Handling and Processing

The Grain Advisory Committee, at its recent meeting in the nation's capital, discussed in detail research in the field of grain processing for industrial uses, and recommended research in these fields. It agreed that there is need for a unified program on wheat to include all phases of milling technology, food uses, industrial uses and the development of new products.

In large part the strictly industrial use of grain, as contrasted with food and feed uses, is concerned with pro-

duction and utilization of the starch, protein and oil constituents. Problems arising during the war and post-war years, when there has been a demand for all grain produced, have shown need for further information on how to process grain with greater efficiency, and also how to handle grains that have been considered only as secondary raw materials.

### To Develop Industrially Important Micro-organisms

As a possible mass outlet for alcohol, one of the investigations planned will study the injection of water-alcohol mixtures in automotive engines. It is proposed to study the efficiency of such mixtures in contrast to alcohol-gasoline blends. Preliminary studies on the injection of water-alcohol mixtures in automotive engines have shown increased operating efficiency, decreased carbon and lead deposits and the possibility of using low octane gasolines.

Another study hopes to develop new, industrially important micro-organisms. Procedures such as those used so successfully in producing penicillin will be used in producing and evaluating natural and induced variations in industrially important organisms that produce chemicals, vitamins, enzymes and therapeutics.

## 1948 FLAXSEED GOALS

A USDA 1948 crop flaxseed goal is 4.3 million acres and a price support of \$6 per bushel, Minneapolis basis, U. S. No. 1 grade. The goal for 1948 is the same as this year's planted acreage, and the price support is the same as in 1947 in order to encourage a continuing high level of production. Price support differentials for locations other than Minneapolis, and for No. 2 grade flaxseed, will be announced at a later date.

## GRAIN LOADING UP OVER 1946

An analysis of grain loading in the Southwest territory indicated that during June and July there were 195,073 cars of bulk grain loaded, an increase of 41.5% over the number loaded in the same two months of 1946. The success of this year's movement from the Southwest is attested to by the fact grain people agree that mills and elevators were handling the maximum volume of grain which could be absorbed currently.

## BORDEN TO BUILD

A large soybean plant is to be built at Fort Dodge, Ia., by The Borden Co., on a 15-acre tract. The company operates a large plant in the state at present.

# douglas



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One of the most *convenient* ways to fight infestation is with a spray. And one of the most effective is through the use of A-G—Douglas Annia-Germ Spray, which has special properties.

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Thus, Annia-Germ can help you not only in such typical spraying applications as corners, walls, freight cars and rafters . . . it also will go to the heart of infestation when sprayed **IN MACHINES**.

And A-G may be used safely around food products. It's spot treatment that *hits* the spot every time! Send for details.

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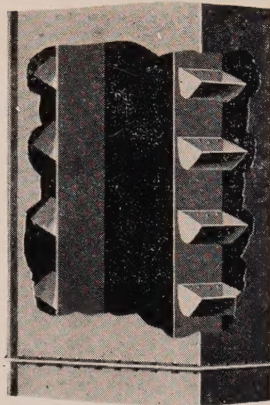
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# Weevil-Cide SPLITTERS

## SMALL LOSS

Judge (getting ready to leave the court room): "I've lost a hat."

Lawyer: "That's nothing. I lost a suit here yesterday."

\* \* \*

## IRRIGATION

Jimmy's mother was obsessed with the idea of cleanliness and Jimmy received far too many baths to suit him. Nevertheless, he continued to thrive—despite the objectionable baths.

A neighbor lady said to him one day, "My, Jimmy, how fast you're growing."

"Yeah," said he. "It's Mom's fault. She waters me too much."

\* \* \*

## BUM CHEF

Cannibal cook: "You want me boil missionary, chief?"

Cannibal chief: "No boil! He not missionary; him say he frier."

\* \* \*

## WELL QUALIFIED

A pedestrian heard frightened screams coming from a small house he was passing. Rushing into the house he found a frantic mother whose small boy had just swallowed a quarter. Seizing the boy by the heels, he held him upside down, shook him, and the coin dropped to the floor.

Said the grateful mother, "You certainly knew what to do. Are you a doctor?"

"No, ma'am," was the reply. "I'm with the Department of Internal Revenue."

## NO STOPS

Overheard in an automobile:

He: "But, darling, don't you trust me? You once said you'd go to the end of the earth with me."

She: "Yes, but I absolutely refuse to park on the way."

\* \* \*

## NO PRAISE, PLEASE

Prosecuting attorney (preparing to cross-question the accused, an ex-convict): "This crime was the work of a master criminal and was carried out in a skillful, experienced manner..."

Accused (interrupting): "Aw, it wasn't nothin', really. Anyway, flatterin' me ain't goin' to git yuh no place."

\* \* \*

## TOO MANY INSTRUCTIONS

Street car conductor: "Can't you read that 'No Smoking' sign?"

Male passenger: "Yeah, but you got signs tellin' me what tooth-paste and cigarettes to use and even what kind of hose and corsets to wear. I can't do all of 'em, so I ain't payin' attention to none of 'em."

\* \* \*

## SINGLE-TRACK MIND

Bobby: "What's a 'she-devil', Pop?"

Pop: "Listen, Bobby, if I hear you refer so disrespectfully to your mother again, I'll be forced to punish you."

\* \* \*

## OR MAYBE A SPONGE

Customer: "What do you do when a customer forgets his change?"

Cashier: "Well, I rap on the window with a dollar bill."

\* \* \*

## COULD BE

Guide: "This historical home has stood here for 150 years. Not a stone has been touched, nothing altered, nothing restored."

Tourist (to wife): "I'll bet our landlord owns it."

## GULP

Breathes there a man who's so abnormal

He can't be stirred by a low-cut formal.

\* \* \*

## APPROPRIATE

"Who won the beauty contest?"

"Pretty Bear, an Indian girl."

"No kiddin'? From what I could see, that name would be okay for any of 'em."

\* \* \*

## —OFF THE OLD BLOCK

A teacher wrote a pupil's mother: "Your son is the brightest boy in the class, but he is also the most mischievous. What do you suggest?"

"Do whatever you think best," wrote the mother in reply. "And let me know. I'm having plenty of trouble myself managing his father."

\* \* \*

## TIME TO GO

A wealthy business man and the newest girl in the office were enjoying a little dinner in a private room at a roadhouse.

As the meal neared its finish, he asked, "Dessert, Maisie?"

"No, thanks, I'm full," replied Maisie.

"Then how about a little demitasse now?"

"Listen!" said Maisie, "up to now you been pretty nice to me. But here's where I leave."

\* \* \*

## SURE REMEDY

Daughter: "Mother, what is the best way to keep Tom from spending so much money on me?"

Mother (curtly): "Marry him!"

\* \* \*

## CONSIDERATE

Father: "Didn't I hear the clock strike three when you got in last night?"

Daughter: "Yes, Daddy. It was going to strike eleven, but I stopped it so it wouldn't waken you."



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## SPECIFICATION "B"

As compared with the Gibraltar qualities of Specification "A" might well be likened to a suit of armour. It provides more protection, looks better, lasts longer than ordinary repairing and weatherproofing for which you pay as much or even more.

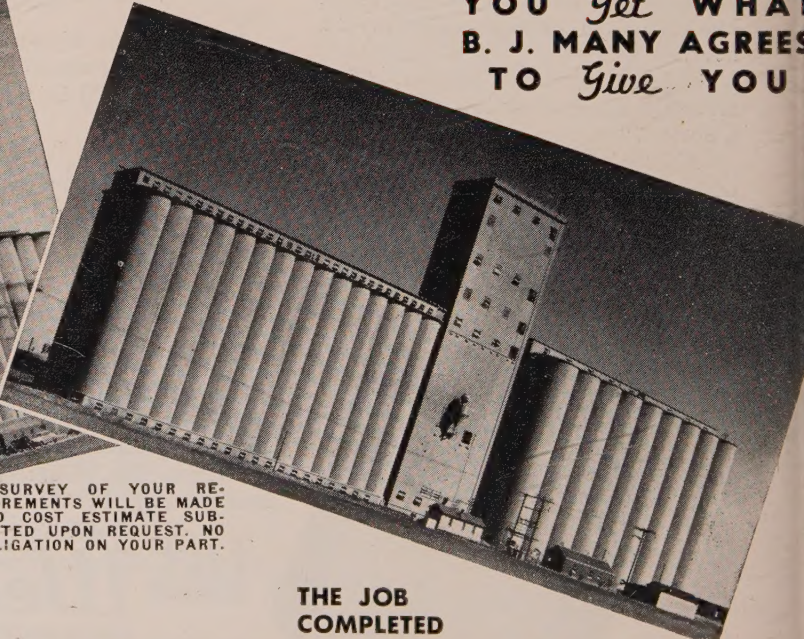
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TO *Give* YOU



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A SURVEY OF YOUR RE-  
QUIREMENTS WILL BE MADE  
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